ENERGY RESOURCES CONSERVATION BOARD
Calgary Alberta

Informational Letter
IL 80-11

TO: All Oil, Gas, and Pipeline Operators

JOINT USE OF RIGHT OF WAY

At recent hearings the Board has received submissions from landowners that multiple pipeline rights of way can be a serious impediment to use of their land. The landowners questioned the need for each company to acquire a new right of way when an earlier right of way still contained only one line. A second problem concerned the extra width of right of way at river crossings which may force a subsequent right of way to move further than necessary from current boundaries.

The Board realizes that there are many legal, financial and planning reasons for the current procedures of acquiring and using pipeline rights of way. None the less, the most efficient use should be made of lands that may be approaching full utilization.

The Board believes that joint use of rights of way in certain circumstances will continue to be an obvious solution to problems facing both pipeline company and landowner. It has reviewed its legislation and with the co-operation of the Surface Rights Board, the legislation that it also administers. Based on this review the Board believes the current legislation enables the Board to direct the joint use of a right of way, and that right of entry can be obtained under the provisions of The Surface Rights Act.

The Board, therefore, requests operators who are planning pipeline alignments to consider joint use of unused portions of rights of way where such a practice would be feasible and would significantly reduce the impact on the landowner's use of his land.

DATED at Calgary, Alberta, on 3 June 1980.

ENERGY RESOURCES CONSERVATION BOARD

V.E. Bohme
Board Member

CANADIANA
JUN 18 1980

ENERGY RESOURCES CONSERVATION BOARD
Calgary Alberta

Informational Letter
IL 80-12

TO: All Operators

GAS WELL TESTING
PRESSURE MEASUREMENT FORMS IN SI

Effective immediately, all pressures reported on non-Board forms should have gauge or absolute values specified.

The methods used should be in accordance with section 3.04.01 of the Canadian Petroleum Association's 4th edition of the Supplementary Metric Practice Guide.

DATED at Calgary, Alberta on 10 June 1980.

ENERGY RESOURCES CONSERVATION BOARD

H. Antonio, P. Eng.
Manager, Data Processing

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ENERGY RESOURCES CONSERVATION BOARD
Calgary Alberta

CANADIANA
JUL 14 1980

Informational Letter
IL 80-13

TO: All Oil and Gas Operators

JUL 14 1980

INCENTIVE EXPLORATORY WELLS DRILLED UNDER THE EXPLORATORY DRILLING INCENTIVE REGULATION, 1978

Effective 25 June 1980, this letter supersedes Informational Letter Nos. IL-OG 74-4, 75-7, and 75-11.

The purpose of this letter is to:

- Consolidate the aforementioned informational letters into one document. These letters describe the procedures employed by the Board for certifying a well and determining the intervals of depth qualifying for credit under the Exploratory Drilling Incentive System.

- Update these procedures to make them compatible with the Exploratory Drilling Incentive Regulation, 1978 (the Regulation), which applies to incentive exploratory wells that are spudded on or after 1 January 1978.

- Clarify the occasionally misunderstood criteria that the Board has always used when deciding whether an oil or gas-bearing occurrence constitutes a "significant occurrence of crude oil or gas", within the meaning of section 7 of the Regulation, or the synonymous "accumulation of crude oil or gas" referred to in Schedules F and G of the Regulation.

To obtain a full account of all Board-administered facets of the Exploratory Drilling Incentive System, this letter should be reviewed in conjunction with the Regulation, copies of which are available from the Department of Energy and Natural Resources, and Informational Letter No. IL-OG 79-1, which refers to the service offered by the Board in conducting a preliminary appraisal before a potential incentive exploratory well is licensed.

1 DEFINITIONS

In this informational letter,

(a) "abandoned well" means

(i) a well that was drilled and forthwith abandoned and that, in the opinion of the Board, does not warrant being cased for production, or

(ii) a well that once produced crude oil or gas but was abandoned before 1 January 1974;

(b) "completed well" means

(i) a well that has been or is cased or completed for production except where such a well had been produced and abandoned before 1 January 1974, or

(ii) a well that, in the opinion of the Board, penetrated a zone that warrants being cased for production, or

(iii) an evaluation well that, in the opinion of the Board, penetrated a zone that would have warranted being cased for production if the well had been drilled as a conventional well;

(c) "incentive exploratory well" means a well certified by the Board as an incentive exploratory well under the Exploratory Drilling Incentive Regulation, 1978;

(d) "pre-existing well" means

(i) a well drilled under a certificate issued before the date and time at which the incentive exploratory well was certified, or

(ii) an uncertified well that was spudded before the date and time at which the incentive exploratory well was certified;

(e) "Class A interval" and "Class B interval" mean the respective intervals of depth of an incentive exploratory well that qualify for credit under Schedule F and Schedule G, respectively, of the Exploratory Drilling Incentive Regulation, 1978;

(f) "qualifying interval" means the total Class A interval and/or Class B interval determined by the Board at an incentive exploratory well;

(g) "significant occurrence of crude oil or gas" and "accumulation of crude oil or gas" mean

(i) the deepest hydrocarbon occurrence penetrated by a "completed well" as defined under clause (b), subclause (i), above, or

(ii) the deepest hydrocarbon occurrence penetrated by a well that had been produced and abandoned before 1 January 1974, but not including the crude oil or gas accumulation which yielded this production, or

(iii) the hydrocarbon occurrence represented by the zone referred to in clause (b), subclauses (ii) and (iii), above;

(h) "4.8-kilometre area" means the area of a circle, having a radius of 4.8 kilometres, that is centred at the bottom-hole location of the incentive exploratory well; and

(i) "2.4-kilometre area" means the area of a circle, having a radius of 2.4 kilometres, that is centred at the bottom-hole location of the incentive exploratory well.

2 CERTIFICATION OF AN INCENTIVE EXPLORATORY WELL

The Board will certify a well to be drilled for oil or gas that, at the time of licensing or certificate renewal, satisfies condition (a), below, and either condition (b), (c), or (d):

(a) intended to be drilled deeper than 609.6 metres, and

(b) located more than 4.8 kilometres from either a pre-existing and completed well or a pre-existing well that penetrated an oil sands deposit, or

(c) located less than 4.8 kilometres from a pre-existing and completed well but intended to be drilled at least 152.4 metres deeper than the deepest significant occurrence of crude oil or gas penetrated by the pre-existing and completed well, or

(d) located less than 4.8 kilometres from a pre-existing well that, in the opinion of the Board, penetrated an oil sands deposit, but intended to be drilled to explore for crude oil or gas at any depth below the deepest member or formation containing the oil sands deposit.

## 3 DETERMINATION OF INTERVALS OF DEPTH QUALIFYING FOR CREDIT

For each incentive exploratory well, the total interval that qualifies for credit will be determined and classified into the Class A and/or Class B categories, in accordance with the following procedures. These procedures are illustrated by Figure 1.

### 3.1 Total Qualifying Interval

(a) If no pre-existing and completed well is in the 4.8-kilometre area, the qualifying interval will be the interval extending from the total depth of the incentive exploratory well up to the depth of 609.6 metres.

(b) If a pre-existing and completed well is in the 4.8-kilometre area, the qualifying interval will be the interval extending from the total depth of the incentive exploratory well up to the deepest of:

- 609.6 metres below the kelly bushing elevation of the incentive exploratory well, or
- 152.4 metres below the depth that, in the opinion of the Board, corresponds to the depth to the base of the deepest significant occurrence of crude oil or gas penetrated by a pre-existing well in the 4.8-kilometre area, or
- the base of the member or formation deemed by the Board to contain the deepest oil sands deposit underlying the location at which the incentive exploratory well is drilled.

### 3.2 Class A and Class B Intervals

(a) The Class A interval, if any, determined for an incentive exploratory well is that part of the total qualifying interval that is deeper than the total depth of the deepest pre-existing well in the 2.4-kilometre area. If such a well either does not exist or is shallower than the qualifying interval, then the Class A and qualifying intervals coincide.

(b) The Class B interval, if any, determined for an incentive exploratory well is that part of the total qualifying interval that is duplicated by a pre-existing well in the 2.4-kilometre area.

### 3.3 Miscellaneous Considerations

(a) When determining the distance between an incentive exploratory well and a pre-existing well, the Board bases its determination on the two wells' bottom-hole locations, rather than their surface locations, and it may require a directional survey to establish a bottom-hole location.

(b) When determining the qualifying interval and the Class A or Class B components thereof, the Board will normally recognize the measured depth at both the incentive exploratory well and each influencing well. But where a well deviates significantly from the vertical, its true vertical depth may be considered.

4 DRILLING CREDIT AREAS

The Foothills, Plains, Northern, and Central Areas, as defined under Schedule H of the Regulation, are outlined on Figure 2.

In the event that a discrepancy exists between Figure 2 and Schedule H, the latter governs.

Any questions regarding this matter may be directed to Mr. F. Phillips, Supervisor of the Incentives Section in the Board's Geology Department.

ISSUED at Calgary, Alberta on 25 June 1980.

ENERGY RESOURCES CONSERVATION BOARD

G. J. DeSorcy
Vice Chairman

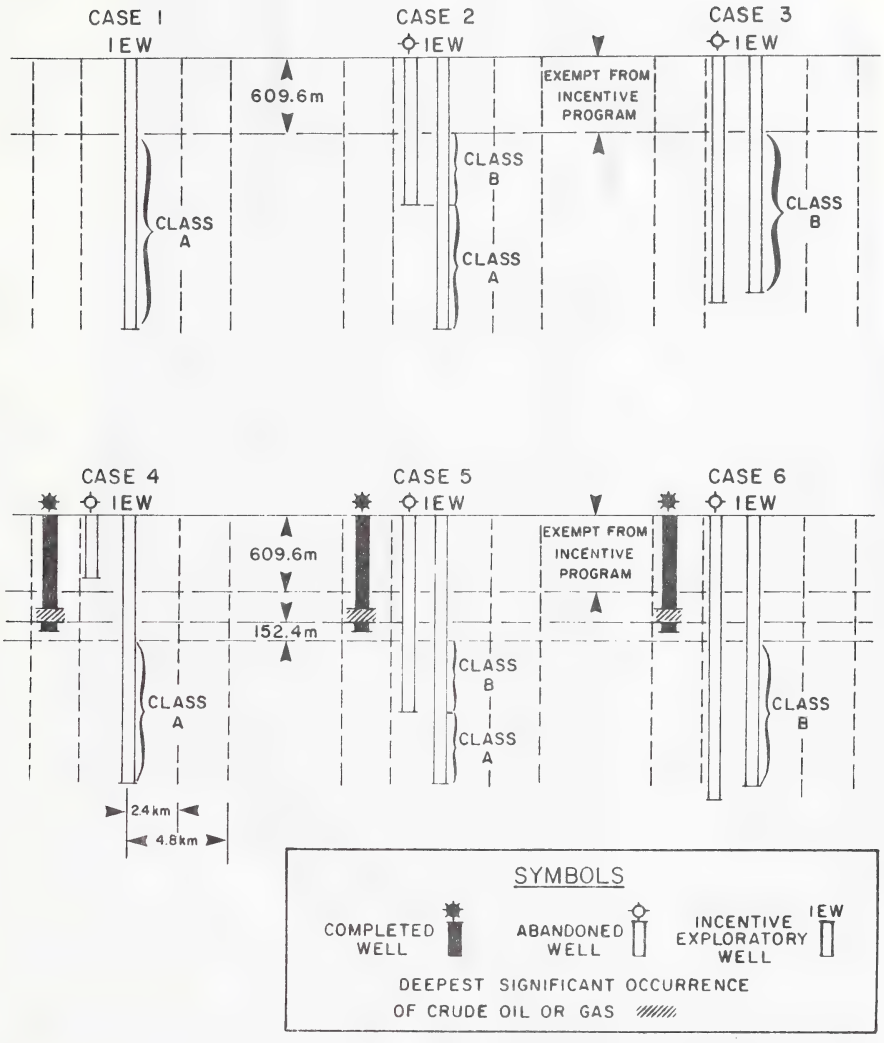


FIGURE I DETERMINATION OF CLASS A AND CLASS B INTERVALS

ENERGY RESOURCES CONSERVATION BOARD
ALBERTA, CANADA

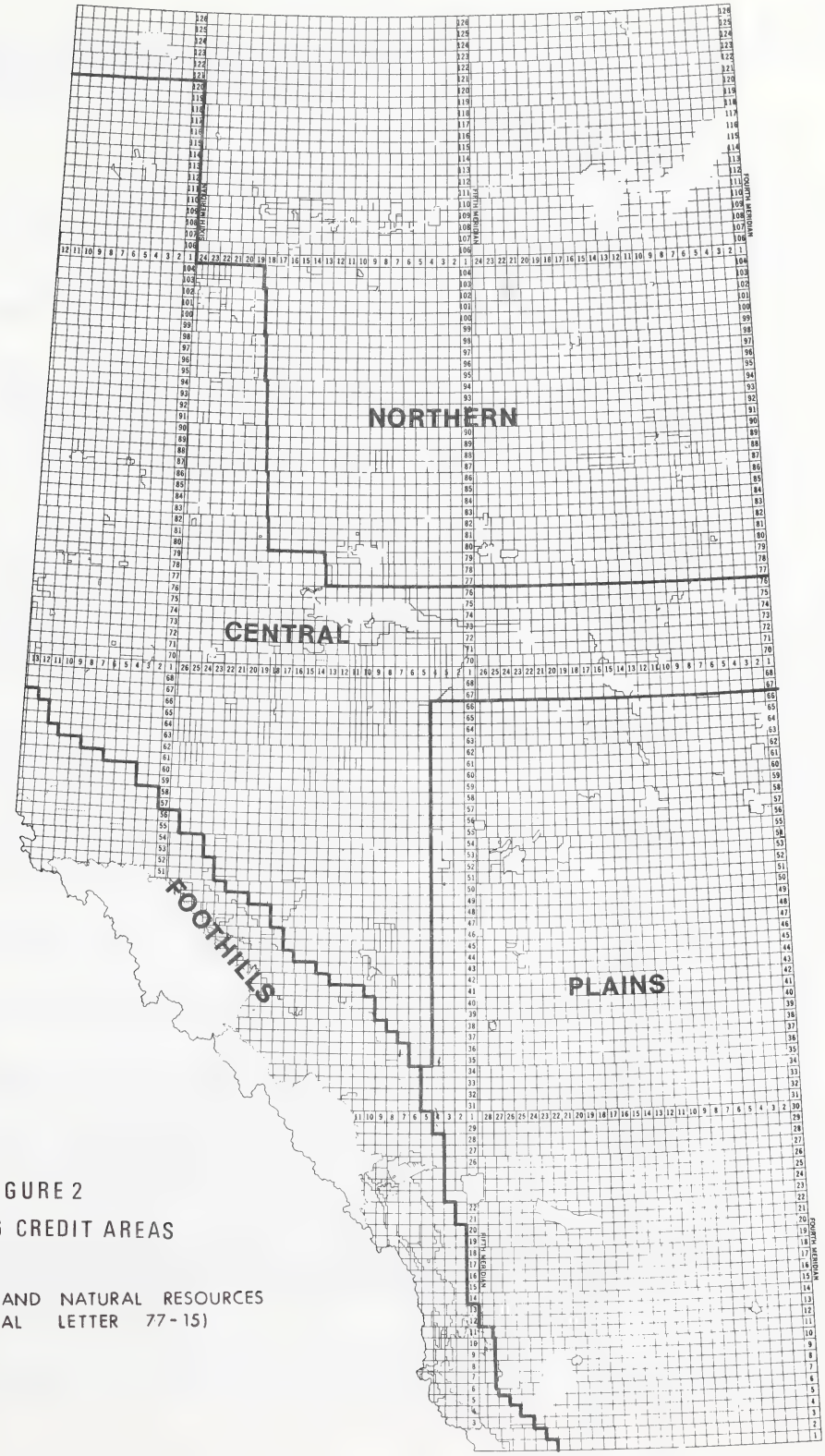


FIGURE 2

DRILLING CREDIT AREAS

(AFTER ENERGY AND NATURAL RESOURCES INFORMATIONAL LETTER 77-15)

ENERGY RESOURCES CONSERVATION BOARD
ALBERTA, CANADA

CANADIANA
JUL 02 1980

ENERGY RESOURCES CONSERVATION BOARD
Calgary, Alberta

Informational Letter
IL 80-14

TO: All operators

COAL MINING AND WELL-DRILLING ON THE SAME LAND - NEW POLICY

In October 1978, the Board convened a public meeting to discuss the problem of mining and petroleum industries developing energy reserves on the same land. The meeting revealed the need to identify and resolve potential conflict situations, and a committee was formed to propose equitable policies and guidelines for co-existing operations.

The committee, made up of representatives of government and the mining and petroleum industries, held four meetings and developed several significant recommendations. These recommendations were distributed to the membership of each organization represented on the committee, and received unanimous approval. The recommendations have been adopted by the Board and the Department of Energy and Natural Resources (ENR) as the following policies:

1. When a petroleum operator applies to the Board for a licence to drill a well within the area of a mine site established as the 10-year mine plan, and

   a) the mining and petroleum operators agree on site selection and technical and economic matters, the Board will issue a well licence to the petroleum operator;

   b) negotiations fail to resolve the conflict, the Board may hold a hearing on the issue upon request.

2. It is believed that most conflicts referred to the Board will be resolved and a well licence issued. However,

   a) in cases where the Board holds a hearing and the hearing decision is to deny the petroleum operator a well licence, that operator may apply to ENR to extend the term of existing mineral agreements for up to five years. Such an extension could only be granted on Alberta Crown minerals;

   b) should an extension end before the well is drilled, ENR would be willing to review each case on its merits and consider other arrangements to allow the petroleum operator to develop the oil and gas resource.

3. When a petroleum operator applies to the Board for a well licence and the well is located beyond the area covered by the 10-year mine plan, the Board will approve the application and notify the mine operator accordingly.

4. Upon request, coal operators may obtain from ENR notice of any petroleum and natural gas (P&NG) rights posted for sale in existing mine-permit areas or those for which the Board has advertised mine-permit applications. To receive this information, coal operators may either have their names placed on ENR's mailing list, or arrange to receive the information through the Coal Association of Canada. However, it remains the coal operators' responsibility to search for sale notices in the areas in which they operate.

To ensure the information provided by policy (4) above is up-to-date, the following procedures will be implemented by the Board and ENR:

1. The Board's Coal Department will supply ENR with a list of all existing mine-permit areas and of the advertised mine-permit applications. It will be the Coal Department's responsibility to ensure that ENR's information remains up-to-date.

2. Upon receipt of the list and updates, ENR will plot the permit areas on its map of Oil and Gas Exploration and Development Restricted Areas.

3. ENR will include an addendum to each P&NG rights sale notice, indicating the coal operator's name and address, together with the name, title, and telephone number of the person to contact for details about the mine.

ISSUED at Calgary, Alberta on 18 June 1980

ENERGY RESOURCES CONSERVATION BOARD

V.E. Bohme
Board Member

ENERGY RESOURCES CONSERVATION BOARD
Calgary Alberta

Informational Letter
IL-OG 80-15

JUN 30 1980

TO: ALL OIL AND GAS WELL, PIPELINE
AND GAS PLANT OPERATORS

GAS WELL TESTING
MILK RIVER FORMATION, MEDICINE HAT ZONE, AND SECOND WHITE SPECKS ZONE

This informational letter updates and supersedes IL-OG 78-15, issued on 7 December 1978, concerning co-ordinating operator areas and responsibilities.

Informational Letter IL-OG 75-12 confirmed the details of a meeting that had been held on 26 June 1975 for the purpose of discussing the need and possible procedures for co-ordinating testing activities pursuant to Informational Letter IL-OG 75-9. It also included a tabulation of co-ordinating operators for each quarter township area as then deemed appropriate by the Board.

Informational Letter IL-OG 78-15 updated and superseded Informational Letter IL-OG 75-12 and was issued to account for changes in co-ordinating operators and areas. The Board has found it necessary to issue a revised informational letter to account for additional development of the area and further changes in co-ordinating operators. This assignment will remain in effect until further notice.

Where it has not been possible to assign areas which are operated by one company alone, the operator with the largest number of wells in the quarter township area has generally been chosen as the co-ordinating operator. Unit boundaries have been respected wherever possible. In choosing the areas for the assignment of co-ordinating operator responsibilities, the Board has kept in mind the primary objective of obtaining reservoir pressure and sandface deliverability data from an appropriate number of representative wells in each of the subject reservoirs.

The principal duties of the co-ordinating operators are listed below:

(1) For the purpose of obtaining reservoir pressure and deliverability test data, to arrange for the designation of at least one representative "control" well per quarter township in each of the subject reservoirs, when development of any or all of the reservoirs has commenced in the designated area.

(2) In consultation with the Board's Senior Gas Reservoir engineer, to ensure that the gas well testing requirements specified in Items 2. and 3. of IL-OG 75-9 are adhered to by all operators within a designated area.

(3) To ensure that by January 31 of each year all test data obtained during the previous calendar year are properly and consistently analysed and submitted to the Board's Gas Department.

(4) To report to the Board before April 30th of each year on testing plans for the designated area for the calendar year.

With regard to the initial test data required on all wells under Item 1. of IL-OG 75-9, all operators are considered responsible to the Board for their own wells.

Notwithstanding the requirements of Item 3.(3) of IL-OG 75-9, co-ordinating operators may, on the approval of the Board's Gas Department, retain test data for longer than 30 days before submitting it to the Board as a package for the co-ordinated area; in no case, however, should test data obtained in a previous calendar year be retained beyond January 31 of the then current year.

Any questions relating to the above matters should be directed to personnel in the Deliverability Group of the Board's Gas Department.

ISSUED at Calgary, Alberta on 18 June 1980.

ENERGY RESOURCES CONSERVATION BOARD

H. J. Webber

H. J. Webber
Manager, Gas Department

ATTACHMENT

TO IL-OG 78-15

| CO-ORDINATING OPERATOR | TWP | RGE | QUARTER TOWNSHIP AREA(S) | ZONE(S) |
|---|---|---|---|---|
| Ocelot Industries Ltd. | 13 | 10 | NW | MR, MH |
| | 14 | 9 | NW, SW | MR, MH |
| | 14 | 10 | ALL | MR, MH |
| | 14 | 11 | SE, NW, NE | MR, MH |
| | 14 | 12 | NE | MR, MH |
| | 15 | 11 | ALL | MR, MH |
| | 15 | 12 | SE, NE | MR, MH |
| | 16 | 11 | ALL | MR, MH |
| | 16 | 12 | SE | MR, MH |
| | 16 | 12 | NW, NE | ALL |
| | 16 | 13 | NE | MR, MH |
| | 16 | 13 | NW | ALL |
| | 17 | 9 | SW, NW | ALL |
| | 17 | 10 | ALL | ALL |
| | 17 | 12 | ALL | ALL |
| | 17 | 13 | SE, NW, NE | ALL |
| | 17 | 13 | SW | MR, MH |
| | 18 | 9 | SW | ALL |
| | 18 | 12 | ALL | ALL |
| | 18 | 13 | ALL | ALL |
| | 18 | 14 | SE | ALL |
| | 19 | 11 | NW, SW | ALL |
| | 19 | 12 | NW, SW, SE | ALL |
| | 20 | 12 | NW, NE, SE | ALL |
| | 22 | 12 | NE, NW, SW | ALL |
| | 22 | 13 | NE, SE, NW | ALL |
| | 23 | 12 | SW | ALL |
| | 23 | 13 | SE, SW | ALL |
| | 24 | 14 | NW, SW | ALL |
| | 25 | 14 | SW | ALL |
| Alberta Energy Company Ltd. | 15 | 6 | ALL | ALL |
| | 15 | 7 | NE, SE, SW | ALL |
| | 15 | 8 | SE, SW | ALL |
| | 16 | 5 | SW | ALL |
| | 16 | 6 | SE, SW | ALL |
| | 16 | 7 | SE | ALL |
| | 18 | 6 | NW | ALL |
| | 18 | 7 | NE, NW | ALL |
| | 18 | 8 | NE, NW | ALL |
| | 18 | 9 | NE | ALL |
| | 19 | 6 | NW, SW | ALL |
| | 19 | 7 | ALL | ALL |

| CO-ORDINATING OPERATOR | TWP | RGE | QUARTER TOWNSHIP AREA(S) | ZONE(S) |
|---|---|---|---|---|
| | 19 | 8 | ALL | ALL |
| | 19 | 9 | NE, SE | ALL |
| | 20 | 6 | SW | ALL |
| | 20 | 7 | SE, SW | ALL |
| | 20 | 8 | SE, SW | ALL |
| Algas Mineral Enterprises | 18 | 11 | NE, NW | MR, MH |
| | 19 | 10 | SW | ALL |
| | 20 | 9 | NW | ALL |
| | 20 | 10 | NE | ALL |
| | 21 | 10 | ALL | ALL |
| | 21 | 9 | SW | SWS |
| Kaiser Oil Ltd. | 15 | 2 | NW, SW | MR |
| | 15 | 3 | NE | MR |
| | 16 | 2 | NW, SW | MR |
| | 19 | 9 | NW, NE | ALL |
| | 20 | 8 | NW, NE | ALL |
| | 20 | 9 | NE, SW, SE | ALL |
| Bralorne Resources Ltd. | 10 | 4 | NW | ALL |
| | 10 | 5 | NE | ALL |
| | 11 | 3 | NW | ALL |
| | 11 | 4 | ALL | ALL |
| | 11 | 5 | SE | ALL |
| | 12 | 3 | SW, SE | ALL |
| | 12 | 4 | SE | ALL |
| Canada Northwest Land Ltd. | 18 | 2 | NE, NW, SW | ALL |
| | 19 | 2 | NE, SE, SW | ALL |
| Canadian Export Gas & Oil Ltd. | 17 | 2 | ALL | MHA |
| | 17 | 3 | NE, NW | MHA |
| | 18 | 2 | SE | MHA |
| | 18 | 3 | SE | MHA |
| Canadian Western Natural Gas Ltd. | 18 | 14 | NW | ALL |
| Candel Oil Ltd. | 15 | 2 | NW, SW | MH |
| | 15 | 3 | NE | MH |
| | 15 | 3 | NW, SE, SW | MHA |
| | 16 | 2 | NW, SW | MH |
| | 16 | 3 | ALL | MHA |
| | 21 | 16 | SW | ALL |
| City of Medicine Hat | 11 | 7 | NW | ALL |
| | 12 | 4 | NW | ALL |
| | 12 | 5 | NW, NE | ALL |
| | 12 | 6 | NE | ALL |
| | 12 | 7 | SW | ALL |
| | 12 | 8 | SE | ALL |

| CO-ORDINATING OPERATOR | TWP | RGE | QUARTER TOWNSHIP AREA(S) | ZONE(S) |
|---|---|---|---|---|
| | 13 | 4 | SW, [illegible] | ALL |
| | 13 | 5 | ALL | ALL |
| | 13 | 6 | SE | ALL |
| | 14 | 4 | SW | ALL |
| Consolidated Pipe Lines Co. | 10 | 7 | ALL | ALL |
| | 22 | 15 | NE | ALL |
| | 23 | 15 | NW, SE, SW | ALL |
| | 24 | 16 | NE, NW | ALL |
| | 25 | 16 | SE, SW | ALL |
| Coseka Resources Ltd. | 16 | 1 | ALL | ALL |
| | 16 | 2 | NE, SE | ALL |
| | 17 | 1 | ALL | ALL |
| Defense Research Board | 15 | 9 | SW, SE, NE | ALL |
| Denison Mines Ltd. | 21 | 11 | ALL | SWS |
| | 21 | 12 | NE | SWS |
| | 22 | 11 | SE, SW | SWS |
| | 22 | 12 | SE | SWS |
| Dome Petroleums Ltd. | 17 | 2 | NE, SE | MR |
| | 18 | 2 | SE | MR |
| | 21 | 12 | SE, SW, NW | ALL |
| Red Gas Ltd. | 13 | 6 | NW | ALL |
| Eagle Oilfield Sales & Fabrication Ltd. | 23 | 12 | NE, NW | ALL |
| Great Basins Petroleum Ltd. | 12 | 6 | NW, SW | SWS |
| | 12 | 7 | NE, SE | SWS |
| | 12 | 7 | NW | ALL |
| | 13 | 7 | ALL | ALL |
| | 15 | 1 | ALL | ALL |
| | 15 | 2 | SE | ALL |
| | 22 | 17 | NE, SE | ALL |
| Hexagon Gas Ltd. | 21 | 5 | NE, NW | ALL |
| | 21 | 6 | NE | ALL |
| | 21 | 8 | NE, NW, SW | ALL |
| | 22 | 4 | NE, NW, SW | ALL |
| | 22 | 5 | NE, SE, SW | ALL |
| | 22 | 7 | SW | ALL |
| | 22 | 8 | NE, SE, SW | ALL |
| | 23 | 4 | SW | ALL |
| | 23 | 5 | SE | ALL |
| | 21 | 5 | SE, SW | MR, SWS |

| CO-ORDINATING OPERATOR | TWP | RGE | QUARTER TOWNSHIP AREA(S) | ZONE(S) |
|---|---|---|---|---|
| Clarion Petroleums | 19 | 2 | NW | ALL |
| | 20 | 2 | ALL | ALL |
| | 20 | 3 | NE | ALL |
| | 21 | 2 | NW, SW | ALL |
| | 21 | 3 | ALL | ALL |
| | 21 | 4 | NE | ALL |
| | 22 | 4 | SE | ALL |
| | 21 | 4 | SE, SW | MR, SWS |
| | 20 | 3 | NW | MR, SWS |
| Hope Gas & Oil Ltd. | 13 | 6 | SW | ALL |
| Hudson's Bay Oil & Gas Co. Ltd. | 15 | 4 | ALL | MHA |
| | 15 | 5 | ALL | MHA |
| | 16 | 4 | ALL | MHA |
| | 16 | 5 | NE, SE | MHA |
| | 23 | 11 | ALL | ALL |
| | 23 | 12 | SE | ALL |
| | 24 | 12 | ALL | ALL |
| | 24 | 13 | NE, NW | ALL |
| | 25 | 13 | SE | ALL |
| Inter-City Manufacturing Ltd. | 13 | 1 | NW, NE | ALL |
| | 14 | 1 | ALL | ALL |
| Kari Investments Ltd. | 12 | 10 | NE | ALL |
| | 13 | 10 | SE, SW | ALL |
| Many Islands Pipelines Ltd. | 12 | 3 | NW, NE | ALL |
| | 12 | 4 | NE | ALL |
| | 13 | 2 | ALL | ALL |
| | 13 | 3 | ALL | SWS |
| | 13 | 3 | SE, SW | MR, MH |
| | 13 | 4 | NE, SE | ALL |
| | 14 | 2 | ALL | SWS |
| | 14 | 3 | ALL | SWS |
| | 14 | 4 | SE, NW, NE | ALL |
| Maynard Exploration Co. Ltd. | 13 | 1 | SW, SE | ALL |
| McCulloch Exploration Ltd. | 14 | 6 | SW, NW | MR, MH |
| | 14 | 7 | ALL | MR, MH |
| | 14 | 8 | ALL | MR, MH |
| | 14 | 9 | SE, NE | MR, MH |
| Merland Exploration Ltd. | 13 | 3 | NE, NW | MR, MH |
| | 14 | 2 | ALL | MR, MH |
| | 14 | 3 | ALL | MR, MH |
| | 18 | 14 | NE | ALL |
| | 19 | 13 | SW, SE | ALL |
| | 19 | 14 | ALL | ALL |
| Dalco Petroleum Ltd. | 14 | 6 | NE, SE | ALL |

| CO-ORDINATING OPERATOR | TWP | RGE | QUARTER TOWNSHIP AREA(S) | ZONE(S) |
|---|---|---|---|---|
| Murphy Oil Company Ltd. | 19 | 10 | NE, SE, NW | ALL |
| | 20 | 10 | SE, NW, SW | ALL |
| North Canadian Oils Ltd. | 18 | 1 | ALL | MR, MH |
| | 20 | 3 | NW | MH |
| | 20 | 4 | NE, NW | MH |
| | 20 | 5 | NE, NW | MH |
| | 21 | 4 | SE, SW | MH |
| | 21 | 5 | SE, SW | MH |
| Oakwood Petroleums Ltd. | 18 | 9 | NW | ALL |
| | 19 | 9 | SW | ALL |
| | 23 | 14 | ALL | ALL |
| | 23 | 15 | NE | ALL |
| | 22 | 13 | SW | ALL |
| | 22 | 14 | NE, SE | ALL |
| Pacific Petroleums Ltd. | 19 | 1 | ALL | ALL |
| PanCanadian Petroleum Ltd. | 12 | 8 | NE | ALL |
| | 13 | 8 | ALL | ALL |
| | 13 | 9 | ALL | ALL |
| | 13 | 10 | NE | ALL |
| | 14 | 8 | ALL | SWS, MR |
| | 14 | 9 | ALL | SWS |
| | 14 | 10 | SW, NE, SE | SWS |
| | 14 | 11 | SW, NW, NE | SWS |
| | 14 | 12 | NE | SWS |
| | 15 | 11 | ALL | SWS |
| | 15 | 12 | ALL | SWS |
| | 15 | 13 | NE | ALL |
| | 16 | 11 | ALL | SWS |
| | 16 | 12 | SW | ALL |
| | 16 | 12 | SE | SWS |
| | 16 | 13 | SW, SE | ALL |
| | 17 | 11 | ALL | ALL |
| | 17 | 14 | ALL | ALL |
| | 18 | 10 | ALL | ALL |
| | 18 | 11 | SE, SW | ALL |
| | 18 | 11 | NE, NW | SWS |
| | 19 | 11 | SE, NE | ALL |
| | 19 | 12 | NE | ALL |
| | 19 | 13 | NE, NW | ALL |
| | 19 | 15 | ALL | ALL |
| | 20 | 6 | NW, NE | ALL |
| | 20 | 7 | NW, NE | ALL |
| | 20 | 11 | ALL | ALL |
| | 20 | 12 | SW | ALL |
| | 20 | 13 | ALL | ALL |
| | 20 | 14 | SE, SW, NE | ALL |
| | 20 | 15 | SE, SW | ALL |
| | 20 | 16 | ALL | ALL |
| | 21 | 6 | SW, SE | ALL |
| | 21 | 7 | SW, SE | ALL |

| CO-ORDINATING OPERATOR | TWP | RGE | QUARTER TOWNSHIP AREA(S) | ZONE(S) |
|---|---|---|---|---|
| | 21 | 13 | ALL | ALL |
| | 21 | 14 | ALL | ALL |
| | 21 | 15 | ALL | ALL |
| | 21 | 16 | SE, NE | ALL |
| | 22 | 14 | NW, SW | ALL |
| | 22 | 15 | SE, SW, NW | ALL |
| | 22 | 16 | SE, SW | ALL |
| | 23 | 16 | ALL | ALL |
| | 23 | 17 | ALL | ALL |
| Pembina Pipe Line Ltd. | 11 | 5 | SW, NW, NE | ALL |
| | 11 | 6 | ALL | ALL |
| | 11 | 7 | SE, NE | ALL |
| | 12 | 4 | SW | ALL |
| | 12 | 5 | SW, SE | ALL |
| | 12 | 6 | SE | ALL |
| | 12 | 6 | SW, NW | MR, MH |
| | 12 | 7 | SE, NE | MR, MH |
| | 14 | 5 | ALL | ALL |
| Pethelon Resources Ltd. | 24 | 15 | SW | ALL |
| Petro-Canada Exploration Ltd. | 14 | 10 | NW | SWS |
| | 15 | 2 | NE | MR |
| | 15 | 3 | SE, NW, SW | MR |
| | 15 | 4 | ALL | MR, MHD |
| | 15 | 5 | NE | MR, MHD |
| | 15 | 5 | SE | MR |
| | 15 | 9 | SW | SWS |
| | 15 | 9 | NW | MR, SWS |
| | 15 | 10 | ALL | MR, SWS |
| | 16 | 3 | ALL | MR |
| | 16 | 4 | ALL | MR, MHD |
| | 16 | 5 | NE, SE | MR, MHD |
| | 16 | 9 | NW, SW | MR, SWS |
| | 16 | 10 | ALL | MR, SWS |
| | 17 | 3 | SE, SW | MR, MHD |
| | 17 | 3 | NE, NW | MR |
| | 17 | 4 | SE | MR, MH |
| | 18 | 3 | SE | MR |
| | 18 | 3 | NE, NW, SW | MR, MH |
| | 19 | 3 | SE, SW | MR, MH |
| Petroleum Royalties Ltd. | 21 | 9 | NE, SE, NW | ALL |
| Sun Oil Company Ltd. | 20 | 15 | NE, NW | ALL |
| | 21 | 7 | NW | ALL |
| | 21 | 8 | SE | ALL |
| Ulster Petroleums Ltd. | 11 | 2 | NW, NE | ALL |
| | 12 | 1 | ALL | ALL |
| | 12 | 2 | ALL | ALL |
| Unó-Tex Petroleum Corp. | 23 | 13 | NW | ALL |
| | 24 | 14 | NE, SE | ALL |
| | 25 | 14 | SE | ALL |

| CO-ORDINATING OPERATOR | TWP | RGE | QUARTER TOWNSHIP AREA(S) | ZONE(S) |
|---|---|---|---|---|
| Wainoco Oil & Gas Ltd. | 21 | 11 | ALL | MR, MH |
| | 21 | 12 | NE | MR, MH |
| | 22 | 11 | SE, SW | MR, MH |
| | 22 | 12 | SE | MR, MH |
| | 21 | 9 | SW | ALL |

ALL - Milk River, Medicine Hat, Second White Specks
MR - Milk River
MH - Medicine Hat
MHA - Medicine Hat A
MHD - Medicine Hat D
SWS - Second White Specks

CANADIANA
JUL 02 1980

ENERGY RESOURCES CONSERVATION BOARD
Calgary, Alberta

Informational Letter
IL 80-16

TO: All Oil Operators

TERTIARY ENHANCED RECOVERY POTENTIAL

The Department of Energy and Natural Resources has by Informational Letter 80-4, dated 25 February 1980, given further details respecting portions of Alberta's Oil Royalty Regulations that are intended to provide economic incentives towards tertiary recovery of the province's oil resources.

Now that this further definition of the royalty incentives provisions is available, the Board believes it appropriate that the potential for enhanced recovery be reviewed in some detail. Towards this objective, the Board requests that all operators give serious consideration to tertiary enhanced recovery schemes that may now be technically and economically viable for implementation. The Board invites operators of major pools to file with the Board, on or before 1 January 1981, a preliminary indication of those pools that may be amenable to tertiary enhanced recovery, the type and extent of schemes, and an indication of the earliest reasonable date at which operations might commence. These tentative plans would be treated in confidence.

Further correspondence on this matter should be addressed to J. A. Bray, Manager, Oil Department, 261-8568.

DATED at Calgary, Alberta on 24 June 1980.

N. Strom
Board Member

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